

International Power Sources, Inc.

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DC/DC Converters



LT Series: 25/30 WATT Wide Input Range

FEATURES

- 4:1 Input Range
- Isolated Outputs
- Efficiency to 84%
- 100 kHz Switching Frequency
- External Output Trim
- Remote Disable
- Six-sided Shield
- PCB Mountable

MODELS CHART

INPUT MODEL NUMBER	VOLTAGE RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENTS		% EFF
				NO LOAD	FULL LOAD	
LT101	9-36VDC	5VDC	5000mA	20mA	2700mA	75
LT102	9-36VDC	12VDC	2500mA	20mA	3100mA	81
LT103	9-36VDC	15VDC	2000mA	20mA	3100mA	81
LT104	9-36VDC	±12VDC	±1250mA	20mA	3100mA	81
LT105	9-36VDC	±15VDC	±1000mA	20mA	3100mA	81
LT106	9-36VDC	+5/+12/-5VDC	3000/+600/1000mA	50mA	3200mA	71
LT107	9-36VDC	5/±12VDC	3000/±600mA	50mA	3200mA	77
LT108	9-36VDC	5/±15VDC	3000/±500mA	50mA	3200mA	78
LT201	20-72VDC	5VDC	5000mA	20mA	1360mA	77
LT202	20-72VDC	12VDC	2500mA	20mA	1500mA	83
LT203	20-72VDC	15VDC	2000mA	20mA	1500mA	83
LT204	20-72VDC	±12VDC	±1250mA	20mA	1500mA	81
LT205	20-72VDC	±15VDC	±1000mA	20mA	1500mA	83
LT206	20-72VDC	+5/+12/-5VDC	3000/+600/1000mA	40mA	1560mA	73
LT207	20-72VDC	5/±12VDC	3000/±600mA	40mA	1500mA	82
LT208	20-72VDC	5/±15VDC	3000/±500mA	40mA	1500mA	83

NOTE: Nominal Input Voltage 12 or 24 VDC

ELECTRICAL SPECIFICATIONS

All specifications typical at nominal line, full load and 25°C

OUTPUT SPECIFICATIONS

Voltage Accuracy	Single Output	 $\pm 1\%$ max.
	Dual+Output	 $\pm 1\%$ max.
	-Output	 $\pm 3\%$ max.
	Triple 5V	 $\pm 2\%$ max.
	12V/15V	 $\pm 5\%$ max.
	-5V	 $\pm 2\%$ max.
Voltage Balance, Dual Output at Full Load	.....	$\pm 1\%$ max.
Transient Response:		
	Single, 25% Step Load Change	 $<500\mu$ sec.
	Dual, FL-1/2L $\pm 1\%$ Error Band	 $<500\mu$ sec.
External Trim Adj. Range	.....	$\pm 10\%$
Ripple & Noise, 20MHz BW	.....	10mV RMS, max.
		75mV P-P max.
Temperature Coefficient	.....	$\pm 0.02\%/^{\circ}\text{C}$ max.
Short Circuit Protection	.....	Indefinite
Overvoltage Protection, 5V	.....	6.8V
	12V	15V
	15V	18V
Line Regulation ¹ :	Single Output	 $\pm 0.5\%$ max.
	Triple Output	 $\pm 1\%$ max.
Load Regulation ² :	Single/Dual Output	 $\pm 1\%$ max.
	Triple Output	 $\pm 5\%$ max.

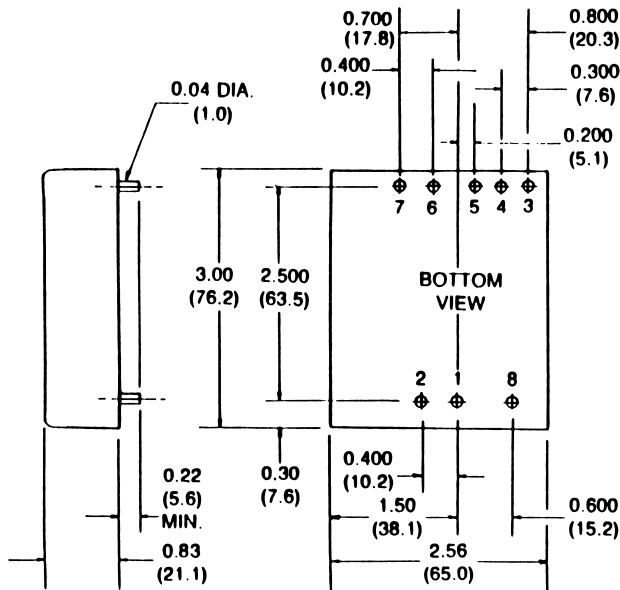
INPUT SPECIFICATIONS

Input Voltage Range	.....	See Table
Input Filter	.....	π Type
Reverse Voltage Protection ³	.....	Internal Shunt Diode
		Use External Fuse

GENERAL SPECIFICATIONS

Efficiency	.....	See Table
Isolation Voltage	.....	500VDC min.
Isolation Resistance	.....	10^9 ohms min.
Switching Frequency	.....	100kHz
Case Grounding	.....	Capacity Coupled to Input
Operating Temperature Range	.....	-25°C to +71°C
Storage Temperature Range	.....	-55°C to +105°C
EM/RFI	.....	Six-sided Continuous Shield
Dimensions	.....	2.56 x 3.0 x 0.83 inches
		(65 x 76.2 x 21.1 mm)
Case Material	.....	Black Coated Copper with
		Non-Conductive Base

DIMENSIONS AND CONNECTIONS



NOTE:

1. Measured from High Line to Low Line.
2. Measured from Full Load to 1/4 Full Load.
3. Determine the correct fuse size by calculating the maximum DC current drain at low line input, maximum load and then adding 20 to 25% to get the desired fuse size.
4. A 10% minimum load is required on dual and triple output models for rated performance.

Dimensions in inches (mm)
Specifications subject to change.

PIN CONNECTIONS

PIN	SINGLE	DUAL	TRIPLE
1	+ Input	+ Input	+ Input
2	- Input	- Input	- Input
3	No Pin	+ Output	+ Output
4	Output Trim	Common	Common
5	No Pin	- Output	- Output
6	+ Output	No Pin	+5V Output
7	- Output	No Pin	No Pin
8	Remote On/Off Control		

REMOTE ON/OFF CONTROL

Logic Compatibility	.....	CMOS or Open Collector TTL
E_{C-ON} ,		$>+5.5$ VDC or Open Circuit
E_{C-OFF},	.....	<0.8 VDC
Shutdown Idle Current	.....	10mA
Input Resistance	.....	(E_{in} 0 VDC to 9 VDC) 100K Ω
Control Common	.....	Referenced to input Minus

EXTERNAL OUTPUT TRIMMING

OUTPUT MAY OPTIONALLY BE EXTERNALLY TRIMMED ($\pm 10\%$) WITH A FIXED RESISTOR OR AN EXTERNAL TRIMPOT AS SHOWN.

